

Notice of Allowability

Application No.

10/772,032

Examiner

Zoila E. Cabrera

Applicant(s)

PATTERSON ET AL

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/06/2005.
2. ☒ The allowed claim(s) is/are 1-3,5-7,9,11,14,16,17,19-22,25-27,29,30,35 and 37.
3. ☒ The drawings filed on 04 February 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>7/22/05</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jon E. Holland on July 20, 2005.

The application has been amended as follows:

Cancel claims 4, 31-34, 36 and 38.

Claim 1, last line, after "comparison" insert a comma - - , - -.

Claim 1, last line, after "comparison" on a separate line insert - - wherein the logic is configured to activate the temperature control element during the first time period based on a comparison between a value indicative of a temperature sensed by the temperature sensor and the first temperature threshold, the logic further configured to automatically make a determination, prior to the second time period, indicating that a high usage of the liquid residing within the tank is expected based on the tracked usage of the temperature control element and to select the second temperature threshold based on the determination, wherein the logic is further configured to activate the temperature control element based on the comparison between the selected temperature threshold and the value indicative of the temperature detected by the temperature sensor during the second time period. - -

Claim 5, line 2, before "temperature" insert - - first - -.

Claim 6, lines 2-3, delete - - , the logic further configured to automatically select the threshold based on the data - -.

Claim 7, line 2, after "element" insert - - during the second time period - -.

Claim 7, line 2, after "based on the " insert - - second - -

Claim 11, line 3 delete "detect a temperature" and insert - - detect temperatures - -.

Claim 11, line 8, after "logic configured" insert - - to activate the temperature control element during a first time period based on a comparison between a value indicative of a temperature sensed by the temperature sensor and a first temperature threshold, the logic further configured to automatically make a determination, after the first time period and prior to a second time period, indicating whether a high usage of the liquid residing within the tank is expected during the second time period based on the data indicative of the usage history of the temperature control element, the logic further configured - -.

Claim 11, line 8, delete "data" and insert - - determination - -.

Claim 11, line 8, delete " a threshold" and insert - - a second temperature threshold - -.

Claim 11, line 9, after "element" insert - - during the second time period - -.

Claim 11, line 10, after "element" insert - - , during the second time period, - -.

Claim 11, line 10, before "threshold" insert - - second temperature - -.

Claim 11, lines 11-13, delete - - , wherein the threshold is not based on a current activation state of the temperature control element at the time of selection for the threshold - -.

Claim 22, line 6, after "logic configured to" insert - - activate the temperature control element during a first time period based on a comparison between a value indicative of a temperature sensed by the temperature sensor and a first temperature threshold, the logic further configured to - -.

Claim 22, line 7, delete "a first " and insert - - the first - -.

Claim 22, line 7, after "first time period and to" insert - - make a determination, based on the value indicative of the total amount of time, indicating whether a high usage of the liquid residing within the tank is expected during a second time period, the logic further configured to automatically - -.

Claim 22, line 7, after "establish a" insert - - second - -.

Claim 22, line 8, delete "a second time period" and insert - - the second time period - -.

Claim 22, line 8, after "the value" insert - - indicative of the total amount of time - -

Claim 22, line 9, after "between the" insert - - second - -.

Claim 22, line 11, after "comparison" insert - - between the second temperature threshold and the value indicative of the temperature of the liquid detected by the temperature sensor during the second time period - -.

Claim 25, line 2, after "the value" insert - - indicative of the total amount of time - -

Claim 29, line 2, after "the value" insert - - indicative of the total amount of time - -

Allowable Subject Matter

2. Claims 1-3, 5-7, 9, 11, 14, 16, 17, 19-22, 25-27, 29-30, 35, and 37 are allowed.

The following is an examiner's statement of reasons for allowance: The allowability of the claims resides, at least in part, that the closest prior art of record **Kozak (US 4,511,790)** does not disclose or suggest, alone or in combination the step of:

Regarding independent claim 1, **the logic further configured to automatically make a determination, prior to the second time period, indicating that a high usage of the liquid residing within the tank is expected based on the tracked usage of the temperature control element and to select the second temperature threshold based on the determination**, in combination with the other elements and features of the claimed invention.

As for independent claim 11, **the logic further configured to automatically make a determination, after the first time period and prior to a second time period, indicating whether a high usage of the liquid residing within the tank is expected during the second time period based on the data indicative of the usage history of the temperature control element, the logic further configured to automatically select, based on the determination, a second temperature threshold to be used for controlling the temperature control element during the second time period**, in combination with the other elements and features of the claimed invention.

As for independent claim 17, **the logic is configured to control the second temperature control element and to perform a verification that the second temperature control element is actually activated when the logic attempts to activate the second temperature control element, and wherein the logic is configured to automatically define the usage history based on the verification, in combination with the other elements and features of the claimed invention.**

As for independent claim 22, **the logic further configured to determine a value indicative of a total amount of time that the temperature control element is activated during the first time period and to make a determination, based on the value indicative of the total amount of time, indicating whether a high usage of the liquid residing within the tank is expected during a second time period, the logic further configured to automatically establish a second temperature threshold for a second time period based on the value indicative of the total amount of time, in combination with the other elements and features of the claimed invention.**

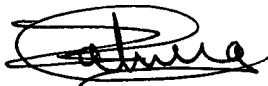
As for independent claim 27, **the logic is configured to control the second temperature control element and to perform a verification that the second temperature control element is actually activated when the logic attempts to activate the second temperature control element, and wherein value is based on the verification, in combination with the other elements and features of the claimed invention.**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zoila E. Cabrera whose telephone number is 571-272-3738. The examiner can normally be reached on M-F from 8:00 a.m. to 5:30 p.m. EST (every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.



Zoila Cabrera
Patent Examiner
July 23, 2005